

City of Falls Church

Meeting Date: 8/09/04	Title: An Ordinance to Amend Chapter 38, Zoning, of the Code of the City of Falls Church, Virginia, by making corrections to Sections 38-16, 38-17, 38-18, 38-23, 38-24, 38-25 38-26 and 38-28, adding Section 38-30, "Landscaping", repealing the landscaping portion of Section 38-31 (11), "Off -Street Parking Requirements" and amending and reenacting Section 38-42, "CBPO, Chesapeake Bay Preservation Area Overlay District" (T04-20)	Agenda No.: 10 (d) (2)
Proposed Motion: MOVE First Reading of (T04-20) and refer to the Planning Commission, Tree Commission, Board of Zoning Appeals and Environmental Services Council and schedule Second Reading for September 13, 2004		
Originating Dept. Head: Elizabeth R. Friel, AICP, General Manager Development Services 703.248.5182 ERF Jill Anne Spence, City Arborist, JAS 703.248.5183		Disposition by Council:
City Manager: Daniel McKeever 703.248.5001 FWS for DEM 8/5/04	City Attorney: Roy Thorpe, Jr. 703.248.5010 RBT 8/5/04	CFO: Shirley Hughes 703.248.5092 SDH 08/05/04

BACKGROUND:

On May 24, 2004, City Council appointed a seven (7) member ad hoc committee, including four (4) staff members from the Planning Division and City Attorney's office. The Committee was chaired by Councilmember, Lindy Hockenberry, and included Christine Sanders, Planning Commission; Bruce Kulpan, Chairman, Tree Commission; Karl Ensign, Falls Church Environment; Melissa Teates, Environmental Services Council; Cay Wiant, Village Preservation and Improvement Society; and Mike Curtin, Citizen at Large. Staff included, Elizabeth Friel, General Manager for Development Services; Jill Anne Spence, City Arborist; Gary Fuller, Principal Planner; and Roy Thorpe, City Attorney. Moe Wadda, Director of Public Works/City Engineer, and Shirley Street, Urban Environmental Inspector, also provided technical assistance to the group as needed. (See Committee list Attachment 1)

The Committee was appointed to study and report back to City Council on options for effectively implementing tree preservation and replacement on single-family residential lots, zoned R-1A and R1-B. As you are aware, a recent ruling on the Tree Ordinance has changed the way in which the Ordinance is applied to development occurring on single-family lots. (Attachment 2 - Ruling)

The Ad Hoc Committee met six (6) times and the major issues considered are provided in detail to assist in providing City Council and the public the Committee's intent in their proceedings and recommendations. The group studied the existing situation in detail and fully explored options to reinstate the provisions of the tree ordinance as they relate to single-family lots. Overall, the Ad Hoc Committee's goal was as follows:

To present to City Council a set of recommendations providing balanced, progressive and appropriate proposed legislation that best preserves, protects and insures replacement of the City's tree canopy and ensures the continued health of the urban forest, specifically relating to single-family residential development.

City Council received an update on the Committee's work on July 6, 2004, was given the written committee report on July 16, 2004 and considered the item in detail in worksession on July 19, 2004. City Council questions included the need to see a graphic example, before and after the legislation, the applicability of the tree canopy coverage to other zoning districts, and process issues. Staff is working on a graphic example to show during the public process. Staff found that the use of tree canopy coverage for commercial or multi-family sites, while permissible under State Code, does not appear to be needed for the City to maintain tree canopy coverage in these areas. The reason is that City Code requires commercial sites to have extensive landscaping requirements well in excess of the 10% the State Code would mandate. Further multi-family zoned sites have City requirements for landscaping and open space that are also well in excess of the 15% that the State Code would mandate.

KEY ISSUES:

At the Ad Hoc Committee's initial meeting the group considered background information provided by staff in five (5) key issue areas. Overall, the Committee discussed:

- **Interim Tree Preservation**
- **Value of Trees**
- **Existing City Legislation**
- **Enabling Legislation**
- **Legislative Issues and Alternatives.**

These areas set the parameters for the Committee's work, summarized within as follows: Meeting summaries are attached with greater detail in Attachment 3.

INTERIM TREE PRESERVATION:

Staff shared with the group the interim City strategy for plan and review and voluntary tree protection. Under the group's direction, a legislative alert hand out was also created and given to all residential development applicants. The handout let applicants know that legislation was under consideration and would likely impact their plans. The Committee further requested information about tree protection on grading plans that had been received or approved since the April 2004 ruling. Staff provided the information of the five plans, all five reflected tree protection, four submitted tree

surveys and three-offered replacement trees. Although there was demonstrated voluntary compliance, the Committee remained concerned that the sites may well go out of compliance during the course of construction and there would not be legal remedy.

VALUE OF TREES:

The Committee also spent time discussing the role of trees in the health of the City's ecosystem. In general, the greater the tree canopy coverage in the City the more environmental and economic benefits the City may derive. Specifically, the greater the tree canopy, the less impact that impervious cover and development will cause. The preservation of the City's mature trees is especially important in the residential areas that are under increasing redevelopment pressure. The impact of large new homes is greatly mitigated by the preservation of existing mature trees. Trees in the City are also a community value as demonstrated in the Comprehensive Plan's goals, the City's annual "Tree City USA" recognition, the City's streetscape plan, the recently appointed Ad Hoc Committee on Open Space, and the community's active role in programs such as the Neighborhood Tree Program.

Trees also provide communities with many valuable benefits that can be measured in terms of dollar benefits. A "Rapid Ecosystem Analysis" (Attachment 4) was completed in the years of 1992 and 2001 for the City of Falls Church. These analyses were completed by American Forests, a non-profit conservation organization, using CITYgreen software. This analysis illustrates some of the economical benefits that tree canopy coverage provides through the improvement of air and water quality and reducing stormwater run off. The City's newly adopted Chesapeake Bay Ordinance further stresses the critical importance of trees to the environment and water quality.

Tree preservation cannot happen by itself, especially on sites undergoing the stresses of construction. Successful tree preservation efforts must adhere to several important principals

1. A site evaluation of existing conditions and trees must be provided as construction activities depend upon accurate information so the impacts to trees can be minimized. A tree survey will help determine which trees are desirable for preservation and identify others that should be removed before they become a liability.
2. Tree preservation requires an understanding of tree biology, as well as of construction techniques and their impact on tree health and structure. Including a *certified arborist* as part of the review and approval process of plans ensures that tree preservation is included in the design phases of development.
3. To ensure ongoing compliance with the approved plan during the construction phase, tree preservation specifications and details should be shown on plans and staff should regularly perform site inspections.
4. When there is a violation of the tree preservation plan, there must be recourse for ensuring mitigation of the damaged trees. This can be accomplished through issuing stop work orders, imposing fines or penalties, or requiring the posting of bonds.

113 **EXISTING CITY TREE PRESERVATION POLICY AND REGULATIONS:**

114 The City's tree preservation and replacement policy is derived from various sources that
115 include the City's Comprehensive Plan. The "Natural Resources and the Environment"
116 Chapter of the plan outlines the City's commitment to the preservation and renewal of
117 its natural resources and particularly its tree cover. The importance of the city's urban
118 forest, its contributions and need to manage it in a responsible manner are also
119 specifically, detailed in Chapter 3 "Community Character and Appearance Design",
120 Chapter 6 "Natural Resources and the Environment", and Chapter 7 "Parks, Open Space
121 and Recreation".

122
123 Generally, a number of existing regulations protect the environment and may offer
124 some tree protection. These regulations include the Zoning Ordinance, Chapter 38,
125 with development regulations for site plans, buffers, landscaping and the Chesapeake
126 Bay Preservation and Floodplain Ordinances; Chapter 31, Subdivision, with some
127 provisions for street trees; Chapter 9, Erosion and Sediment Control Ordinance; and
128 Chapter 35, Trees, Shrubs, and Weeds Ordinance.

129
130 Of these existing regulations, only Chapter 35 contains specific regulations with regard
131 to tree preservation and replacement on single-family residential lots. The Tree
132 Ordinance's provisions with regard to single-family lots are on one hand, all-
133 encompassing, but on the other, very general. The Ordinance allowed tree preservation
134 on residential sites undergoing development (prior to the appeal) and then provides
135 "factors to consider" when trees are to be preserved. The Ordinance has no specific
136 standards as to the amount of trees to be preserved and how bonding is to be
137 implemented. The Ordinance does speak to tree replacement, but allows only a 1 tree to
138 1 tree ratio, which does not recognize that a large mature tree is not equivalent to a
139 newly planted small tree. Given the existing Ordinance's lack of clarity in some areas,
140 staff felt that further information about how the Ordinance was actually working would
141 be helpful.

142
143 The effectiveness of the existing tree preservation and protection measures for single
144 family lots were analyzed by staff. Staff analyzed the average post and pre development
145 tree protection utilizing twelve (12) grading plans approved prior to the April ruling.
146 The amount of tree canopy created on these plans was compared to the requirements of
147 the Virginia State Code, which allows localities to require a minimum 20% tree canopy
148 coverage on single-family lots. Staff's study concluded that on half of the grading plans,
149 the minimum of 20% tree canopy coverage was not met. These grading plans illustrated
150 trees that could not practically be preserved throughout the construction process due to
151 their location and proximity to the limits of clearing and grading or location inside the
152 building envelope. Tree replacements were not required in some instances. The average
153 tree canopy coverage of grading plans was 10%, which does not meet the minimum
154 state code requirements. Overall, on sites where many trees were required to be
155 removed due to construction, the City was providing for less than half of the state code
156 requirement for tree canopy replacement.

159 **ENABLING LEGISLATION:**

160 Section 15.2-961 of the Virginia State Code pertains to protecting trees "during the
161 development process" and further allows site plan requirements to preserve "minimum
162 tree canopies or covers." The statute sets out the minimums. A 20% minimum is
163 permitted for residential property "zoned 10 units or less per acre." So at that density,
164 the City could require 20% preservation of the trees, but not more. Further Section 38-
165 42 of the Chesapeake Bay Preservation Act provides for the "preservation of
166 existing vegetation where practical" and a provision that in any case where the
167 requirements of the Chesapeake Bay Preservation Act conflict with any other provision
168 of the Code of the City or existing state or federal regulations, whichever imposes the
169 more stringent restrictions shall apply. The Chesapeake Bay Preservation Act presents
170 another opportunity and tool to preserve existing vegetation, in particular trees, on
171 residential lots. Arlington and Fairfax Counties and other localities have successfully
172 utilized the Chesapeake Bay legislation to preserve trees.

173
174 **LEGISLATIVE ISSUES AND ALTERNATIVES**

175 **Second Legal Opinion Issue**

176 Throughout the process the Committee discussed whether or not the City should receive
177 a second legal opinion on options for clarifying the existing ordinance or developing a
178 new one. The Ad Hoc Task Force discussed that within the community, there is
179 considerable interest in receiving a second opinion (in addition to that offered by the
180 City Attorney) on the best course of action for instituting a tree ordinance that can
181 produce the desired effect and successfully withstand legal challenges. The Committee
182 explored several options in this area, including seeking a second legal opinion on
183 clarifying the existing ordinance and developing a new one. Although the Committee
184 wished to emphasize that seeking a second opinion remains a viable option, they did not
185 recommend taking this course of action at this time for the following reasons:

- 186
187 1) There is a general consensus that the recommended policy changes (specifically,
188 incorporating a new tree ordinance within the existing Chesapeake Bay
189 Preservation Act) are preferable to the existing one in terms of specificity and
190 comprehensiveness.
191 2) The City Attorney assured the Committee that this course of action is better able
192 to withstand legal challenges in comparison to amending the current ordinance.
193

194 Incorporating a tree ordinance within provisions relating to the Chesapeake Bay
195 Preservation Act (and leaving the current tree ordinance intact and unaltered) does not
196 preclude re-visiting the existing ordinance at a later date, or crafting additional
197 ordinances, should the course of action recommended by City staff and this committee
198 proves unenforceable or ineffective.
199

200 **Legislative Alternatives**

201 The Committee also discussed two legislative alternatives at some length.

- 202 ○ **Modify the existing Tree Ordinance (Chapter 35) to recapture its provisions**
203 **for residential tree preservation and replacement.**
204 ○ **Create new tools for residential tree preservation and replacement.**

Discussions of these alternatives are summarized here with emphasis on those areas of extended discussion.

○ ***Alternative 1 – Modify Chapter 35***

Early in the process, the Committee asked about any potential for simply “fixing” Chapter 35 to add clarifying language to the Tree Ordinance. Staff research and consultation with the City Attorney has reflected that it is unlikely that changes may be made to this section without losing our “grandfathered” status. Amending Chapter 35 will risk losing the vested status under Section 15.2-961 of the Code of Virginia. Continued discussion with the City Attorney confirms this legal opinion.

The City Attorney has advised staff that there is not a quick fix to Chapter 35 to add back coverage for R1A and R1B. He advised that the City not attempt to change Chapter 35. There is the potential of filings of declaratory judgment that would potentially strike down the entire chapter, losing the remainder of Chapter 35. Changing the language in Article II, Tree Removal would lose the “severability” of the Article II and in court it could be declared void since it was amended.

A tool to safely amend the Tree Ordinance would be to ask for a Charter change for Chapter 35 with the General Assembly. The advantage would be to have the old Code back, but the risk would be that it would not get approved. The timing is also a concern, while legislation would be submitted in fall 2004 and if passed, implementation, would not occur until July 1, 2005 at the earliest.

○ ***Alternative 2 – Create new tools***

The existing Tree Ordinance (as it was historically interpreted) allowed site and tree evaluation and potential protection to trees both on and off site and allowed the posting of bonds for compliance with plans. However, the Ordinance did not provide for replacement trees consistently and was often viewed as inequitable due to the subjective requirements that were open to interpretation. The Committee wanted to get back the full protection of the Ordinance, but also try to gain clarity by providing tangible and equitable standards.

The State enabling legislation does allow measurable standards through the canopy coverage requirements. This legislation also provides more structure and support for the protection of “off site” vegetation, such as trees located on adjacent lots, street and park trees. Further the legislation allows the locality to tailor requirements like the development of a list of desirable trees that are to be used for both preserved and replacement trees. For example, Norway maple trees would not count towards tree canopy coverage. Further flexibility is allowed through “credits” for the preservation of existing trees that are not located on the developing lot and the potential for a “tree fund” for those trees that cannot be located properly on site.

The Committee was concerned that the State code also has some negative aspects that they worked to minimize. The State code may appear to be encourage the replacement of trees over the preservation of trees and the minimum canopy coverage of twenty (20) percent may appear to encourage only 20%. The Committee considered that the Center

for Watershed Protection research generally indicates that at or around twenty-five to thirty (25 –30) percent impervious cover, the health of the watershed shifts to poor. American Forest recommended a minimum of fifty (50) percent tree canopy coverage in residential areas to offset commercial areas. As discussed below, the idea of special legislation was discussed and remains a possibility to allow the City to require a higher minimum.

However, the Committee ultimately agreed that the strengths of an enhanced Chesapeake Bay Preservation Ordinance as well as the State Code standards would provide sufficient protection for trees on residential sites. The primary characteristics are summarized below as well as critical issues that the Committee spent additional time fine-tuning and perfecting.

Enhance the Existing Chesapeake Bay Ordinance - Key Elements:

-Allows For Tree Preservation

-Environmental basis

-Used successfully in Arlington and Fairfax Counties

-Adds definitions such as tree canopy coverage and drip line.

-Adds a landscape conservation plan requirement that includes similar requirements as our current preliminary tree survey. In addition, the location of critical root zones (CRZ) of all on site and off site trees is required. This helps to aid in better identification of the creation of “hazard trees”.

-Adds verification requirements for the inspection of tree preservation measure prior to issuing permits.

-Adds provisions for existing vegetation that has been encroached upon.

-Establishes a mitigation plan for non-compliance

-Appeals - Committee felt strongly that **appeals must be made to a group and not vested in one person. The Committee’s intent is reflected in the revised language that appeals will go to the Planning Commission**, with advice from other Boards such as the Tree Commission, and not the City Manager.

- Other revisions - Please note that other minor revisions recommended by staff in this draft were initiated by the Chesapeake Bay Interdisciplinary Review Team (CBIRT) and are designed to provide clearer guidance for applicants in following the terms of the ordinance relative to submission requirements and a few other matters. The CBIRT definition was changed and the group’s duties were defined. One other revision was recommended by the Chesapeake Bay Local Assistance Department relative to the application of best management practices for multiple parcel stormwater management within Resource Protection Areas. This change was made to make the ordinance consistent with the state ordinance and will generally not apply to the City, because it is already so developed, and as such, best management practices will be permitted to locate within the Resource Protection Area. Overall, clarifying language was added at to describe that the performance criteria applies to all RPA projects; regarding the applicability in R1-A and R1-B projects in the RPA; and clarify the requirements of the WQIA. Finally, technical corrections such as capitalization and adding punctuations were made. Note that the revised CBPO language begins at Line 1148 (p. 28) and is

shown with new or revised language underlined and language to be deleted shown as ~~strikeout~~.

New Residential Landscaping Standards - Key Elements:

-Allows for **Tree Replacement**

-Uses State **Code standards** and adds **tree canopy coverage requirements** on residential lots zoned R1-A and or R1-B.

-Provides **Uniformity**

-Committee requested **strong emphasis on tree preservation** vs. tree replacement and the standards are weighted to encourage preservation of mature trees over planting of new ones. This intent is reflected throughout the proposed Code language. Note that existing mature trees are weighted to encourage their preservation over the planting of new small trees.

-Provides **clear tree replacement standards**, with additional credit given for the species diversity, plantings within a rain garden, and energy conservation credits.

-The Committee requested strong language regarding the uses of the tree canopy coverage fund. Note the proposed language reflects that modifications to the tree canopy coverage requirement in this section may be permitted where its strict application cannot be met based on the lot's unique physical constraints, and will not allow for the planting of the replacement vegetation, in the professional opinion of the City Arborist. Only in these cases, the City Arborist may allow a cash contribution to the tree canopy coverage fund or off-site mitigation fund whereby a portion of a lot's tree canopy coverage requirements may be met from off-site mitigation planting or replanting at locations as directed by the City Arborist. It is also important to note that requests for tree plantings on private property shall be prioritized based on the lot's location in the sub watershed, existing tree canopy coverage and other site conditions that would improve the urban tree canopy. The commitment of the homeowner to provide long term care for the planting shall be required.

-Committee felt that the **future monitoring of the tree canopy and annual** reporting was needed. Staff proposes that the monitoring be done by the City Arborist and an annual report provided to the City Council, Tree Commission, Planning Commission, and Environmental Services Council. The committee discussed legislating this annual monitoring and reporting and their concern about ensuring that the monitoring happens. The City Attorney reported that legislating (codifying) policy (i.e. tree coverage) is not typically the case with most other ordinances, and is usually handled under a resolution. The City Arborist suggested that this tree canopy monitoring and reporting be initially scheduled in six (6) months, thereafter annually.

-Bonds – The majority of the Committee felt that bonds for replacement trees must be used. Although there was dissent on this point, **the majority opinion was in support of a one-year bond to guarantee at least the first year (highest risk)** of the ten-year maturity period - 20 percent tree canopy requirement.

Note that one member of the Ad Hoc Committee felt it was more appropriate that the bonding to ensure replacement trees survive should be issued for the full ten year maturity period, rather than simply the first year when trees are the most vulnerable. This member wrote, "A 10 year bond is more consistent with the policy recommended by the group. When the property owner or developer replaces trees to accommodate

development/redevelopment, there is the clear expectation that 20 percent canopy coverage will be achieved not immediately, but in 10 years. Therefore, the City should have assurances (through the issuance of a 10 year bond) that this expectation will be achieved, should the replacement trees fail during this 10-year timeframe”. Please also see an additional Committee member opinion attached regarding bonds. (Attachment 5). Note that the new residential landscaping standards language begins at Line 728.

State Code Change Issue

The Committee also discussed asking for special legislation for the City in the State Code to potentially allow the City to require more than 20% tree canopy coverage or potentially allow the City to request a lower grading plan/erosion and sediment control review threshold than the 2,500 square foot standard. This lowered threshold would allow tree preservation and replacement review also on smaller development sites.

Other New Landscaping Standards Commercial-Key Elements:

Staff has been working to place more realistic and better provisions for landscaping in the Zoning Ordinance for over one year. The City Council had received an extensive presentation in worksession in 2003 and then an update earlier this month. City Council and the Planning Commission have been supportive of new landscaping provisions.

The new residential landscaping standards are part of the overall revised landscaping standards already created by staff, but not yet adopted: new Section 38-30 A-G. All of the new landscape provisions must be reviewed and approved together to work properly. The residential standards are in Section E and are discussed above and below. Please find the key elements of pertaining to commercial and multi-family zoned sites described below:

The goals of new landscape provisions, including the residential landscape standards as discussed above, are as follows:

- To create a separate chapter of the City Code for landscaping purposes and to reorganize and combine requirements in one location.
- To create a smoother review process that is easier to follow with more standards and expectations of plan submission and content of required plans.
- To consolidate adopted Fairfax County Guidelines on Parking Lots into Falls Church Zoning Code to eliminate unnecessary and outdated document.
- To modify the parking lot landscaping requirements to be more reflective of conditions in the City to reduce the number of waivers.
- To add content that is lacking in present ordinance that will have positive effects on management of natural resources and improve quality of landscape plans.

To meet these goals, the following major changes have been completed:

-Overall Organization Landscaping requirements are located in a chapter of their own. The section divided into logical subject areas with similar components: objectives, plan submission requirements, tree preservation, screening parking lots, interior parking lot

requirements, site elements screening, screening between sites of different uses, design criteria and maintenance standards

-Buffers -The Zoning Ordinance is not currently consistent about the need for buffers or what sort of landscape materials is needed in the buffers. Staff is proposing detailed site screening requirements as now reflected only in the MUR Ordinance. These detailed standards will allow more consistent screening between different uses, provide aesthetically pleasing landscaping and for the environmental benefit of providing trees. Sitescreening requirements vary depending on the intensity of both the district in which a use is proposed and its neighboring district.

-Standards – The new landscaping section adds general guidelines that would encourage landscape design that will increase the longevity of plant material in harsh parking lot conditions. These new standards also reflect changes in the arboricultural field to include species diversity and native plant species. Finally, the standards include minimum design characteristics, maintenance requirements and design principles for the construction of planting islands, planting medium, under grounding utilities, bio retention areas, parking lot facilities and berms.

Note that the new landscaping standards language begins at Line 554 and is shown with new language underlined and the old landscaping language to be deleted shown as ~~strikeout~~ beginning at Line 1006. Finally, please note that technical corrections have been made throughout the Zoning Ordinance to correctly reference the new landscaping section and these corrections begin a Line 490.

TIMING:

Routine. After First Reading by City Council on August 9, 2004 and the item will be referred to applicable Boards and Commissions, receive a Planning Commission recommendation September 7, 2004. Second reading by City Council is scheduled for September 13, 2004.

PUBLIC COMMENTS:

Through the Ad Hoc Committee process, several groups or individuals offered comments that are shown as Attachments 6A-D.

RECOMMENDATIONS:

Ad Hoc Committee Recommendations:

The Ad Hoc Committee strongly recommends that, in the future, when it becomes clear that City Codes are problematic, that the City staff be proactive and bring issues to City Council's attention and when instructed, develop alternative legislation for the City Council to consider for adoption. In addition, it is strongly recommended that the City not make changes that affect existing ordinances through the appeals process. This would avoid lapses in regulation and inequitable applications of regulations, as well as, in this case, a potential loss of valued community assets--trees. Further, if the new legislation is adopted, that the results of the legislation and the tree canopy goals in particular, be monitored and reported annually by the City Arborist to City Council, the

Tree Commission, Planning Commission, Environmental Services Council, other interested parties and the public.

The Ad Hoc Committee, after deliberation, has found that there are viable alternatives that meet the Committee's goal which was to present to City Council a set of recommendations providing balanced, progressive and appropriate proposed legislation that best preserves, protects and insures replacement of the City's tree canopy and ensures the continued health of the urban forest.

Overall, this goal is met by the proposed Alternative 2, the two-tiered approach of enhancing the Chesapeake Bay Preservation Ordinance and creating new residential Landscape Ordinance standards. Many other communities, including Arlington County and Fairfax County, have successfully utilized this state mandated Ordinance for tree preservation. State Code provisions that provide for statewide tree canopy requirements are also included and will serve as a good starting point for the City's urban forestry goals. It is interesting to note that some of the prior development under the historic interpretation of Chapter 35 did not always meet this minimum standard. The expansion of the City's Landscape Ordinance provides guidance for tree replacement. One great advantage of this new Code is that tree replacement is fair, easily understandable and written in Code for all to see and understand.

However, the Ad Hoc Committee recommends that requesting a special legislative exception for the City in the State Code, be considered for action as well. The City can request a modification to State Code allowing the City to enforce higher foliage coverage than 20% and also request a lower grading plan/erosion and sediment control review threshold than the 2,500 square foot standard. These requests would be limited to the City of Falls Church only and not statewide. Under the current restrictions the City cannot fully preserve trees at the level necessary to meet the needs of the community. Tree foliage surveys of the City have seen the percentage steadily drop of the last two decades. An exception to the foliage coverage percentage and grading plan/erosion and sediment control review threshold is necessary to significantly reverse that trend. In summary, the Ad Hoc Committee recommends City Council consideration of these proposed Ordinance amendments noting that final technical edits are continuing to be made by City staff as well as the creation of accompanying policy documents. Staff also recommends the adoption of the amendments to the Chesapeake Bay Preservation Ordinance and the new residential landscaping standards. Further staff recommends the adoption of the related technical amendments to the Chesapeake Bay Preservation Ordinance and the new commercial landscaping standards.

ATTACHMENTS:

1. Ad Hoc Committee List
2. Memorandum – City Manager Ruling and Background Minority Report
3. Meeting Summaries
4. American Forests - "Rapid Ecosystems Analysis" Information
5. Minority Report

6. A-D Comments

(T04-20)

AN ORDINANCE TO AMEND CHAPTER 38, ZONING, OF THE CODE OF THE CITY OF FALLS CHURCH, VIRGINIA, BY MAKING CORRECTIONS TO SECTIONS 38-16, 38-17, 38-18, 38-23, 38-24, 38-25 38-26 AND 38-28, ADDING SECTION 38-30, "LANDSCAPING", REPEALING THE LANDSCAPING PORTION OF SECTION 38-31 (11), "OFF -STREET PARKING REQUIREMENTS" AND AMENDING AND REENACTING SECTION 38-42, "CBPO, CHESAPEAKE BAY PRESERVATION AREA OVERLAY DISTRICT"

Section 38-16, R-1A, Low Density Residential District

(e)

(1)-(6)...

(7) Additional Requirements. For additional requirements as to height, lot, yard, and related regulations see Sections 31-28, 38-30 and 38-42

Section 38-17, R-1B, Medium Density Residential District

(e)

(1)-(6)...

(7) Additional Requirements. For additional requirements as to height, lot, yard, and related regulations see Sections 31-28, 38-30 and 38-42.

Section 38-18, R-C, Cluster Residence District

(a) – (d)

(e) Conditions applying to permitted uses

(1)- (10)...

(11) A landscaped strip of at least ten (10) feet in width shall be provided along the site and rear boundaries of the development in accordance with the requirements of 38-30, Landscaping.

(12) Parking lots shall be screened from public streets and adjacent property in accordance with Section 38-340.

Section 38-23, B-1, Limited Business District

(a) - (b).....

(c) Conditions applying to permitted uses. Along any side or rear lot line adjoining an "R" District there shall be provided a twenty foot buffer in accordance with the provisions of 38-30, Landscaping.

Section 38-24, B-2, Central Business District

(a) - (c).....

(d) Conditions applying to permitted uses. Any building or above grade accessory parking structure on any lot abutting a “R” District shall be setback for the lot lines which adjoin the “R” District by a twenty foot buffer in accordance with the provisions of 38-30, Landscaping.

Section 38-25, B-3, General Business District

(a) - (b).....

(c) Conditions applying to permitted uses. Along any side or rear lot line adjoining an “R” District there shall be provided a twenty-foot buffer in accordance with the provisions of 38-30, Landscaping.

Section 38-26, M-1, Light Industry District

(c)

(2) Conditions applying to permitted uses.

a....

b. Along any side or rear lot line adjoining a “R” District there shall be provided a buffer ~~as described subsection (b) (9) of Section 38-28~~ in accordance with the provisions of 38-30, Landscaping.

Section 38-28, Height, lot and yard requirements

(a) ...

(9) Required minimum rear yard depth not contiguous to a public thoroughfare to include a ten-foot wide landscaping strip in accordance with the provisions of 38-30, Landscaping.

Section 38-30 Landscaping

(a) Intent and Objectives. The intent of this section is to preserve existing, healthy plant communities, and create new landscaping areas in areas that are being developed or redeveloped in commercial and residential areas. Natural vegetation and landscape plantings are an important community asset as they provide environmental benefits, enhance community character, and add to property values. The objectives set forth in this section include the following:

(1) Improve traffic flow in parking lots through the use of planted islands and medians that separate moving traffic from parked cars;

(2) Enhance the appearance and preserve the character of the surrounding properties and public rights-of-way;

- (3) Conserve energy and moderate solar radiation through the use shade tree plantings in parking lots and streets;
- (4) Visually integrate developments into the existing landscape and minimize potential conflicts between abutting developments, and ensure that a natural vegetative area of appropriate size and density is located between zoning districts;
- (5) Provide screens around obtrusive site elements within a development through the use of plantings and architectural features;
- (6) Improve the environment for pedestrians along streets and within parking lots and other pedestrian areas;
- (7) Reduce soil erosion and protect surface water quality by minimizing removal of existing vegetation;
- (8) Reduce stormwater runoff and improve water quality by providing vegetative areas where stormwater can infiltrate; and
- (9) Preserve and enhance the longevity of vegetation and improve the quality of vegetation selection through the implementation of landscape standards and specifications.

(b) Perimeter Parking Lot Landscaping. The perimeter around off-street parking lots, newly constructed and/or existing, shall be landscaped in accordance with this section whenever a site plan is required for the property upon which it is located. The area shall be landscaped with a combination of trees, shrubs, fences, and walls and/or berms of sufficient height and density. The purpose of the landscaping is to screen the parking or other vehicular use area from public streets and/or abutting properties; to provide street and/or shade trees; and to provide an attractive appearance in keeping with the city's character.

(1) Perimeter parking lot landscaping adjacent to public streets.

a. Perimeter parking lot landscaping shall be provided between an off-street parking area or other vehicular use area and any adjacent public street. If the area is screened by an intervening structure such as a building, screening is not required.

b. A solid landscaped planting strip that is at least three and one-half (3 ½) feet in height and ten (10) feet in width shall be provided. This strip shall contain a minimum of twenty-five (25) small shrubs and four (4) canopy trees per one hundred (100) linear feet. See Table 4 in Section 38-30 (g), *Bonding, Installation, Specifications and Maintenance of Vegetation*, for minimum plant material requirements.

c. In cases where substantial grading results in a parking lot lower in elevation than the adjacent right-of-way, the resulting embankment should be planted with the required vegetation.

(2) Perimeter parking lot landscaping adjacent to abutting properties.

a. Non-residential zoned properties.

1. A solid landscaped planting strip that is at least three and one-half (3 ½) feet in height and at least ten (10) feet in width shall be provided. This strip shall contain a minimum of twenty-five (25) small shrubs and four (4) canopy trees per one hundred linear (100) feet. See Table 4 in section 38-30 (g) *Bonding, Installation, Specifications and Maintenance of Vegetation*, for minimum vegetation size requirements.

2. Where the required landscaped strip abuts an existing hedge, wall or other durable barrier on the abutting property, the existing barrier may partially satisfy the landscape requirements of this subsection, provided that the existing hedge, wall or other durable barrier meets the screening height, is attractive appearance and the required trees have adequate space to grow.

b. Residential zoned properties. A solid landscaped planting strip at least that is at least five (5) feet in height and at least ten (10) feet in width shall be provided. This strip shall contain a minimum of twenty-five (25) large shrubs and four (4) canopy trees per one hundred linear (100) feet. See Table 4 in section 38-30 (g) *Plant Material Installation, Specifications and Maintenance*, for minimum plant material requirements.

(c) Interior Parking Lot Landscaping. Shall apply to all parking lots that contain twenty (20) or more spaces and whenever a site plan is required for the property upon which it is located. Interior parking lot areas shall be located and landscaped in such a manner as to divide and break up the expanse of pavement and to provide for safe movement of vehicles and pedestrians. Furthermore, parking lots shall be adequately constructed to support shade trees, which reduce the negative environmental impacts of impervious surface area and improve the aesthetics of parking lots.

Parking lot areas shall contain a minimum of five (5) percent interior landscaping in addition to any required perimeter landscaping. Trees located in a required perimeter landscape planting strip shall not be credited toward the interior parking lot landscaping requirements. The five (5) percent interior parking lot landscaping requirement calculations shall be clearly labeled and vegetation included in the calculations shown on the landscape plan.

- (1) One planting island of a minimum area of 162 square feet shall be provided for every 3,240 square feet of parking lot area. Each planting island shall contain a minimum of one (1) shade tree per 162 square feet, shrubs and/or groundcover throughout the entire area of the planting island.
- (2) Required trees shall be located in islands or medians, between rows of parking spaces, and/or at the end of parking bays. Every parking space shall be located no more than ninety (90) feet from an interior parking lot tree.
- (3) Planting islands shall be a minimum inside dimension of nine feet by eighteen feet (9' x 18') in area, underlain by soil (not base course material)

prepared to a minimum depth of twenty-four (24) inches. Alternatively, structural soil or irrigation may be used to aid in the sustainability of the plant material.

(d) Required Buffer Strips Between Zoning Districts. Buffers between different adjacent zoning districts shall apply to all sites whenever a site plan is required for the property upon which it is located. These requirements do not apply to perimeter boundaries that are of the same zoning district. The purpose of the buffer is to visually integrate developments into the existing landscape, buffer lower density districts, buffer and screen commercial uses and ensure that a vegetative area of appropriate size and density is located between zoning districts.

(1) Buffers shall be continuous pervious planting areas with adequate space to support vegetation both above and below ground. No parking, drive aisles, and utilities shall be permitted in the buffer.

(2) The five (5) buffer types are described below and are summarized in Table 1. The matrix to determine the appropriate category to use, depending on the property's zoning district and the surrounding property's zoning district, follows in Table 2. A property may abut more than one zoning district; in that case, a different requirement would apply to each side of the property.

Buffer A -- A ten (10) foot wide landscape planting strip with a minimum of twenty-five (25) small shrubs and four (4) canopy trees per one hundred (100) linear feet.

Buffer B -- A ten (10) foot wide landscape planting strip with a minimum of twenty-five (25) small shrubs and four (4) canopy trees per one hundred (100) linear feet. In addition to this vegetation, a screening element at least six (6) feet in height must be created to consist of either a masonry wall, a combined three (3) foot high earthen berm with the required landscaping located atop the berm, or a solid wood fence.

Buffer C -- A seven (7) foot wide landscape planting strip with a minimum of twelve (12) evergreen trees per one hundred (100) linear feet.—In addition to this vegetation, a screening element at least six (6) foot in height must be created to consisted of either a masonry wall or a solid wood fence.

Buffer D -- A twenty (20) foot wide landscape planting strip with a minimum of twenty five (25) small shrubs, twenty five (25) large shrubs, twelve (12) evergreen trees and four (4) canopy trees per one hundred (100) linear feet.

Buffer E-- A fifteen (15) foot wide landscape planting strip with a minimum of twenty five (25) large shrubs and four (4) canopy trees per one hundred (100) linear feet. In addition to this vegetation, a screening element at least six (6) feet in height must be created to consist of either a masonry wall, a combined three (3) foot high earthen berm with the required landscaping located atop the berm, or a solid wood fence.

Table 1: Buffer Type and Vegetation Planting Density.

<u>Buffer Type</u>	<u>Minimum Width</u>	<u>*Shade Tree</u>	<u>Evergreen Tree</u>	<u>Small Shrub</u>	<u>Large Shrub</u>	<u>Screening Element</u>
<u>A</u>	<u>10'</u>	<u>4/100'</u>		<u>25/100'</u>		<u>No</u>
<u>B</u>	<u>10'</u>	<u>4/100'</u>		<u>25/100'</u>		<u>Yes</u>
<u>C</u>	<u>7'</u>		<u>12 /100'</u>			<u>Yes</u>
<u>D</u>	<u>20'</u>	<u>4/100'</u>	<u>12/100'</u>	<u>25/100'</u>	<u>25/100'</u>	<u>No</u>
<u>E</u>	<u>15'</u>	<u>4/100'</u>			<u>25/100'</u>	<u>Yes</u>

* In the case of overhead utility lines, six (6) understory trees per one hundred (100) feet shall be substituted for shade trees.

(3) Buffers A, B, C, D, and E are minimum standards for the size and density of the vegetation in the buffer areas. The developer may substitute a more intense buffer type, for example, requirement B being higher than A. In certain situations, as shown in the Table 2, choices for buffer types are given.

(4) Existing topographic conditions, such as embankments or berms, may be substituted for part or all of the required buffer area at the discretion of the City Arborist. The minimum visual effect shall be equal to or exceed that of the required buffer. The height of the berm shall be measured from the grade of the adjacent property.

(5) Existing trees and other vegetation may be used for buffers if they are healthy and are approved as part of the landscaping plan by the City Arborist. The minimum quantities and /or visual effect of the existing vegetation shall be equal to or exceed that of the required landscape planting strip.

Table 2: Required Buffer Category by Proposed and Adjacent Zoning Districts*

<u>Zoning District (proposed development)</u>	<u>Zoning District (adjacent property)</u>					
	<u>R-1A</u>	<u>R-1B</u>	<u>R-C</u>	<u>R-TH</u>	<u>R-M</u>	<u>O-D</u>
<u>R-C</u>	<u>A</u>	<u>A</u>	<u>N/A</u>	<u>A</u>	<u>A</u>	<u>A</u>
<u>R-TH</u>	<u>A</u>	<u>A</u>	<u>A</u>	<u>N/A</u>	<u>A</u>	<u>A</u>
<u>R-M</u>	<u>B or C</u>	<u>B or C</u>	<u>B or C</u>	<u>B or C</u>	<u>N/A</u>	<u>B or C</u>
<u>O-D</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
					<u>E</u>	

<u>T-1</u>	<u>E</u>	<u>E</u>	<u>E</u>	<u>E</u>		<u>A</u>
<u>T-2</u>	<u>E</u>	<u>E</u>	<u>E</u>	<u>E</u>	<u>E</u>	<u>A</u>
<u>B-1</u>	<u>D or</u> <u>E</u>	<u>D or</u> <u>E</u>	<u>B or</u> <u>C</u>	<u>B</u> <u>or</u> <u>C</u>	<u>A</u>	<u>N/A</u>
<u>B-2</u>	<u>D or</u> <u>E</u>	<u>D or</u> <u>E</u>	<u>B or</u> <u>C</u>	<u>B</u> <u>or</u> <u>C</u>	<u>A</u>	<u>N/A</u>
<u>B-3</u>	<u>D or</u> <u>E</u>	<u>D or</u> <u>E</u>	<u>B or</u> <u>C</u>	<u>B</u> <u>or</u> <u>C</u>	<u>B</u> <u>or</u> <u>C</u>	<u>N/A</u>
<u>M-1</u>	<u>D or</u> <u>E</u>	<u>D or</u> <u>E</u>	<u>D or</u> <u>E</u>	<u>D</u> <u>or</u> <u>E</u>	<u>D</u> <u>or</u> <u>E</u>	<u>D or E</u>

* More than one requirement may apply to a proposed development if it is adjacent to more than one zoning district.

(e) Tree Canopy Coverage Required on Residential Lots Zoned R1-A, Low Density Residential and R1-B, Medium Density Residential.

- (1) It is the intent of this section to regulate existing and replacement trees and/or shrubs to provide tree canopy coverage on developing and/or redeveloping residential lots zoned R1-A, Low Density Residential and R1-B, Medium Density Residential.
- (2) Trees designated by the City as Historic, Specimen, Street, Park, Memorial and other public trees shall be regulated pursuant to Chapter 35 "Trees, Shrubs and Weeds".
- (3) All developments, redevelopments, and/or land disturbing activities that are located in R1-A and R1-B zones that will disturb greater than or equal to twenty-five hundred (2,500) square feet of land shall provide for the preservation and/or planting of trees on the lot to the extent that, at a maturity of ten (10) years, the minimum lot coverage of the tree canopy shall be twenty (20) percent.
- (4) Calculation of the tree canopy coverage shall be the sum total of the preserved vegetation and replacement vegetation.
 - a. Preserved tree canopy coverage shall include the drip line beneath trees that measure no less than two (2) inches in diameter at breast height (DBH) six (6) inches above ground level and shrubs that measure no less than five (5) feet in height.
 - b. Replacement tree canopy coverage shall be as determined by the Virginia Nursery and Landscape Association. Vegetation that is not included in this list shall be substituted for vegetation of similar growth rate, type and form.

(5) Existing vegetation that shall be credited towards the required tree canopy coverage includes:

- a. Existing or relocated trees and/or shrubs that have been preserved in accordance with a Landscape Conservation Plan pursuant to Section 38-42, Chesapeake Bay Preservation Area Overlay District.
- b. Canopy coverage from preserved trees and/or shrubs shall be credited an additional twenty-five (25) percent. This is to encourage the preservation of existing vegetation and to recognize the additional environmental benefits that mature trees provide.
- c. A tree canopy that extends over more than one lot will receive credit for only that portion of canopy covering the lot from which the tree or shrub is growing.
- d. Only the portion of a tree canopy extending over the lot from an adjacent property will be credited.

(6) Existing vegetation that shall not be credited towards the required tree canopy coverage include:

- a. Trees that are dead, or that are in poor and/or “hazardous” condition with a life expectancy less than ten (10) years, as determined by the City Arborist.
- b. Undesirable and/or invasive vegetation, as determined by the Virginia Department of Conservation and Recreation (DCR) and the Virginia Native Plant Society (VNPS).
- c. Other vegetation may not be permitted, as determined by the City Arborist.

(7) Replacement vegetation is required on lots that do not meet the minimum tree canopy coverage requirements either through the preservation of existing vegetation or the absence of tree canopy coverage present at the time of development or redevelopment.

- a. Replacement trees and/or shrubs shall be chosen from the “Recommended List of Trees and Shrubs to Plant in the City of Falls Church”.
- b. Substitutions of other types of replacement vegetation may be considered by the City Arborist provided that it does not negatively impact native plant communities, cause damage to nearby structures and infrastructure, or possess inherent physiological traits that cause such trees to structurally fail.
- c. Size, planting and installation specifications of the required replacement vegetation shall be pursuant to this section.

(8) In addition to the quantity of the replacement vegetation, its quality shall be encouraged through providing tree canopy coverage credit(s). Credit shall be given for the following types of vegetation that are selected and planted on the

lot so that it improves the overall health and condition of the urban tree canopy and provides for additional environmental benefits.

- a. Replacement trees and/or shrubs shall be chosen from the “Recommended List of Trees and Shrubs to Plant in the City of Falls Church”. Replacement vegetation that receives tree canopy coverage credit shall be clearly labeled on the Landscape Conservation Plan as required by section 38-42, Chesapeake Bay Preservation Area Overlay District. Except for the species diversity credit, only one type of credit shall apply per tree.
- b. A best management practice (BMP) credit of twenty-five (25) percent shall be given for those trees that are used in rain gardens, bio retention areas or other vegetative best management practices.
- c. An energy conservation credit of twenty-five (25) percent shall be given for those types of trees that are an approved species for energy conservation. Trees shall be located twenty (20) to thirty-five (35) feet from the edge of a building and shade its western, southwestern or northern exposure from 2:30 p.m. to 7:30 p.m. from May through September.
- d. A species diversity credit of an additional ten (10) percent shall be given to the total replacement tree canopy coverage for Landscape Conservation Plans that have a variety of replacement vegetation types. These plans shall adhere to the species diversity principal that one tree type does not compose more than twenty (20) percent of the total amount of required replacement vegetation.
- e. A utility line compatible credit of the same amount as a listed shade tree shall be given to trees that are an approved species that do not conflict with overhead utility lines. This credit applies when site constraints do not allow for the planting of shade trees elsewhere on the lot.

(9) Installation and bonding requirements of replacement vegetation shall be regulated pursuant to section 38-29(j) (2), Site Plans.

(10) Where areas to be preserved (as designated on an approved Landscape Conservation Plan) are encroached upon, the City Arborist may require the replacement of any vegetation damaged or destroyed. The size, species and quantity of these replacements shall be determined by the City Arborist based on the value of the vegetation removed as calculated by the latest formula published by the International Society of Arboriculture.

(11) Modifications to the tree canopy coverage requirement in this section maybe permitted where its strict application can not be met based on the lot’s unique physical constraints, and will not allow for the planting of the replacement vegetation, in the professional opinion of the City Arborist. Only in these cases, the City Arborist may allow a cash contribution to the tree canopy coverage fund or off-site mitigation fund whereby a portion of a lot’s tree canopy coverage requirements may be met from off-site mitigation planting or replanting at locations at the direction of the City Arborist.

(12) The tree canopy coverage fund or off-site mitigation fund shall be established for the deposit of cash contributions and mitigation fees, when necessary, and

administered by the City Arborist. This fund shall be utilized to plant trees on public and/or private properties within the City of Falls Church boundaries.

- a. Cash contribution shall be based upon the replacement cost of the vegetation. The replacement cost shall be the sum total of all costs to purchase, transport, plant and guarantee the tree(s) for one (1) year from the date of planting.
- b. Requests for tree plantings on private property shall be prioritized based on the lot's location in the sub watershed, existing tree canopy coverage and other site conditions that would improve the urban tree canopy. The commitment of the homeowner to provide long term care for the planting shall be required.
- c. Tree plantings shall be contracted out yearly and documentation provided to the Tree Commission and/or other interested parties as to the fund's administration, and the locations and types of trees planted.

(f) Design Criteria.

(1) Landscape plans shall be prepared by a landscape architect, landscape designer, certified arborist or Virginia Certified Nurseryman (VCN) that satisfies the requirements of section 38-31(11), and other applicable provisions of Chapter 38.

- a. Vegetation shall be chosen from the "Recommended List of Trees and Shrubs to Plant in the City of Falls Church". The applicant may propose the use of vegetation or designs that fulfill the intent of this section, with the approval of the City Arborist.
- b. Required vegetation in screening landscape planting strips, landscaping in interior parking lot areas and buffers shall be distributed over their entire lengths and widths.
- c. Vegetation maybe arranged symmetrically (formal) or asymmetrically (informal) and shall be grouped to form plant clusters. Informal groupings that reflect the natural character of the region are encouraged.

(2) To increase the diversity of the age and species in the urban forest, consideration shall be given to save mature trees and plant trees on sites where the tree population is over maturing. Also, to allow for a variety of interest in form, color and height to reduce the opportunity for pest and disease population, the following chart shall be used to select the appropriate number of plant material species:

Table 3: Plant Diversity Chart

<u>NUMBER OF PLANT MATERIALS</u>	<u>MINIMUM NUMBER OF SPECIES</u>	<u>MAXIMUM % OF ANY ONE SPECIES</u>
<u>0-5</u>	<u>1</u>	<u>100</u>

<u>6-15</u>	<u>2</u>	<u>50</u>
<u>16-30</u>	<u>3</u>	<u>40</u>
<u>31-50</u>	<u>4</u>	<u>30</u>
<u>50 +</u>	<u>6</u>	<u>20</u>

(3) The location, dimension and spacing of required plantings shall be adequate for their proper growth and maintenance, taking into consideration the sizes of such plantings at maturity and the present and future environmental requirements, such as wind, soil, moisture and sunlight.

(4) Where the required plantings abut City parkland or other ecologically sensitive areas, vegetation shall be non-invasive and selected from indigenous trees, shrubs and perennials. This is to restrict the introduction of invasive plant species; vegetation shall be determined by the City Arborist.

(5) Foundation plantings. To soften the edge of the building in the landscape, a five (5') foot wide planting area may be required in instances where the proposed building is not abutting the public right-of-way, sidewalks or parking lot. Vegetation should achieve a minimum of three and one-half (3.5) feet to five (5) feet in height.

(6) Street trees. Shall be required when they abut or lie within a proposed subdivision or development and/or redevelopment along all proposed public and private streets.

a. Where there is no public right-of- way, a perpetual easement for street tree planting and maintenance maybe requested of the developer and recorded on the development plan.

b. Trees placed in the public right-of-way shall become the responsibility of the City to maintain and replace.

c. Tree canopy coverage provided by street trees planted in conjunction with residentially zoned R1-A or R1-B lots maybe credited towards the lot's minimum canopy coverage requirements.

(7) Off-street parking structures. Off-street parking structures shall conform to all applicable provisions of yard requirements, section 38-28. Landscaping shall be provided and maintained in all yards. Suitable facades shall be provided as part of the structure. Landscaping requirements shall not apply to parking spaces within such structures. A wall at least three and one-half (3 1/2) feet in height shall surround any parking which is on top of a structure, and suitable plantings shall be provided to buffer the view of such parking from nearby properties and rights-of-way.

(8) Landscape borders. All landscaped areas adjacent to any vehicular travel way, parking space or other vehicular use area shall be bordered by a six-inch concrete header curb. Wheel stops or other appropriate devices may be substituted when the department of public works determines that such alternative devices are needed for drainage purposes.

(9) Sight distance for landscaping adjacent to points of access. Plantings shall be selected and located so that they do not contribute to conditions that may be hazardous to public safety. Such locations include, but are not limited to, public street right of ways, underground and above ground utilities .

(10) When an access way intersects a public right-of-way, all landscaping within the triangular areas described below shall provide unobstructed horizontal visibility between three (3) feet and six (6) feet above pavement level. Tree trunks may be permitted in these areas provided they do not constitute a traffic hazard. The triangular areas referred to above are formed by each side of the access way and public right of way line, with each side being ten (10) feet in length from the point of intersection, and the third side being a line connecting the ends of the two (2) other sides.

(11) Landscaping adjustments after installation. In the event that the landscaping materials approved by the planning commission cannot be installed due to unavailability, or if the installed varieties fail, substitute materials may be installed, provided they are approved by the City Arborist.

(12) Exceptions. The Planning Commission may waive or modify the requirements of this section where adjacent properties are developed under a unified site plan or where the strict interpretation of these provisions would reduce the usable area of a site to a point that would preclude a reasonable use. In such instances, special landscaping and/or architectural techniques may be required in lieu of the requirements of this subsection. The Planning Commission may also attach conditions to any such waiver or modification to assure that the results of the waiver or modification shall be in accord with the purposes and intent of this subsection.

(g) Bonding, Installation, Specifications and Maintenance of Vegetation. The following shall apply to all vegetation or transplanted vegetation as required under this section. All vegetation shall meet the minimum standards for health, form, and root condition as outlined in the latest edition of *American Standard for Nursery Stock*, published by the American Association of Nurserymen (AAN).

(1) Installation and bonding requirements of vegetation shall be regulated pursuant to section 38-29(j) (2), Site Plans. All installation of the vegetation shall be carried out under the inspection of the City Arborist. Installation may be spot checked by the City Arborist.

Table 4: Vegetation and Minimum Size Chart

<u>TYPE OF VEGETATION</u>	<u>MINIMUM SIZE AT PLANTING</u>	<u>SIZE AT MATURITY</u>
<u>Shade Tree</u>	<u>2 – 2 ½” caliper</u>	<u>> 40’</u>
<u>Understory Tree</u>	<u>2 – 2 ½” caliper</u>	<u>< 40’</u>
<u>Evergreen Tree</u>	<u>6’</u>	<u>12 – 20’</u>
<u>Large Shrub</u>	<u>24”</u>	<u>> 5’</u>
<u>Small Shrub</u>	<u>24”</u>	<u>> 3 1/2’</u>

(2) Vegetation substitutions. Due to seasonal planting issues or a lack of plant availability, approved landscape plans may require minor revisions. Minor revisions to planting plans may be approved by the City Arborist if there is no reduction in the quantity or significant change in size or location of vegetation and the new vegetation has the same general design characteristics (approved species, mature height, crown spread) as the vegetation being replaced.
(3) Maintenance. It shall be the ultimate responsibility of successive property owners to insure that the required vegetation is properly maintained in compliance with the approved site plan in perpetuity. Dead or diseased plant material shall be removed or treated promptly by the property owner and replaced within 180 days.
(4) Maintenance guidelines for the plantings are encouraged to be published by the planting plan designer, to be used by grounds maintenance personnel to insure that the design's buffering and screening concepts are continued. The City of Falls Church Landscape Maintenance Guidelines shall be adhered to at a minimum and shall be shown on all landscape plans.
(5) Safety. All sight triangles shall remain clear, and any plant material that could endanger safety such as unstable limbs shall be removed and the plant material replaced if necessary. It shall be the responsibility of the property owner to maintain all plantings and architectural elements to ensure a safe environment.
(6) Plan approval. Plans submitted only for landscaping additions or deductions shall be approved by the Planning Commission following recommendations from the City Arborist and the architect, as part of the site plan process. A certain amount of discretion is possible in providing the landscaping required by this subsection. Applicants are required to consult with the City Arborist in advance of plan preparation in order to determine what trees, shrubs and other landscape materials are preferred.
(7) Specific landscaping guidelines, planting design, and materials shall be reviewed by the City Arborist and by the Planning Commission during the site plan review process and shall be in accordance with the guidelines established by The City of Falls Church.
(8) All vegetation required by this section must be installed prior to the occupancy of the site. Where compliance with this regulation is not possible because of seasonal planting limitations, the City Arborist shall grant an appropriate delay.

Sec. 38-31. Off-street parking requirements.

(1) -(10)

(11)——Landscaping, a Accessory structures and incidental provisions.

a. Objectives. ~~The objectives of this subsection are to improve the appearance of off-street vehicular parking and open-lot vehicular sales and service areas and to protect and preserve the character and value of the surrounding properties and public rights-of-way.~~

~~b. Installation and plant materials. All installation shall be carried out under the inspection of the city, and plant materials used to satisfy the provisions of this subsection shall conform to the requirements of the city.~~

~~c. Landscaping of existing off-street parking; when required. Existing off-street parking shall be landscaped in accordance with this section whenever planning commission approval is required for a site plan for the property upon which it is located.~~

~~d. Perimeter landscaping adjacent to public streets. An off-street parking area or other vehicular use area, where such area is not screened by an intervening structure from any adjacent street, shall be provided perimeter landscaping between such area and such street, the purpose of which shall be to provide appropriate screening and street trees.~~

~~1. A landscaped strip of land at least ten (10) feet in width shall be provided.~~

~~2. Such strip shall be landscaped with a combination of trees, shrubs, fences, walls and/or berms of sufficient height and density to screen adequately the parking or other vehicular use area from the public right-of-way, to provide shaded areas and to provide an attractive appearance in keeping with the city's character. In most instances, a solid landscape screen at least three and one-half (3 1/2) feet in height shall be required in the landscaped strip, except as modified in subparagraph h. below.~~

~~e. Perimeter landscaping relating to abutting properties. An off-street parking area or other vehicular use area, where such area is not screened by an intervening structure from abutting properties, shall be provided with perimeter landscaping, the purpose of which shall be to provide appropriate screening and an aesthetically pleasing visual transition from one property to another.~~

~~1. A landscaped strip of land at least ten (10) feet in width shall be provided.~~

~~2. Such strip shall be landscaped with a combination of trees, shrubs, fences, walls and/or berms of sufficient height and density to screen adequately the parking or other vehicular use area from the abutting property, to provide shaded areas and to provide an attractive appearance in keeping with the city's character. In general, a solid landscape screen at least three and one-half (3 1/2) feet in height shall be required if the abutting property is zoned for commercial or industrial use. Likewise, a solid landscape screen at least five (5) feet in height shall generally be required if the abutting property is zoned for residential use.~~

~~3. Where the required landscaped strip abuts an existing hedge, wall or other durable barrier on the abutting property, except where the abutting property is zoned R-1A or R-1B, such existing barrier may be considered as partial satisfaction of the landscape requirements of this subsection, provided that such existing barrier meets all applicable standards of this subsection.~~

~~f. Interior landscaping. Off-street parking areas shall be provided with interior landscaping as follows:~~

1. Interior and landscaped areas shall be located and landscaped in such a manner as to divide and break up the expanse of pavement, to provide shade and to provide for safe movement of vehicles and pedestrians. Sidewalks may be provided in such areas where necessary as vehicle overhang areas or where needed for pedestrian safety.

2. Specific landscaping guidelines, planting design, and materials shall be reviewed by the city arborist and by the planning commission during the site plan review process and shall be in accordance with the guidelines established in the Fairfax County Office of Comprehensive Planning report, entitled, Parking Lot Landscaping.

g. Landscape borders. All landscaped areas adjacent to any vehicular travel way, parking space or other vehicular use area, shall be bordered by a six-inch concrete header curb, except that wheel stops or other appropriate devices may be substituted when the department of public works determines that such alternative devices are needed for drainage purposes.

h. Sight distance for landscaping adjacent to points of access. When an accessway intersects a public right-of-way, all landscaping within the triangular areas described below shall provide unobstructed horizontal visibility between three (3) feet and six (6) feet above the pavement level. Tree trunks may be permitted in these areas provided they do not constitute a traffic hazard. The triangular areas referred to above are formed by each side of the accessway and the public right-of-way line, with each side being ten (10) feet in length from the point of intersection, and the third side being a line connecting the ends of the two (2) other sides.

i. Vehicle overhang areas. Whenever landscaped areas are provided contiguous to 90-degree, 60-degree, or 45-degree parking spaces, a maximum front vehicle overhang area may be credited to the required size and length of the parking spaces. Whenever such overhang areas are provided, parking shall be restricted to "head-in parking" only. The grade and landscape materials in such vehicle overhang areas shall not be so high as to interfere with the vehicles.

j. Existing plant material. In instances where healthy plant material exists on a site prior to its development, the planning commission may adjust the application of the above-mentioned standards to allow credit for such plant material, if, in its opinion, such an adjustment is in keeping with the intent of this chapter and if preservation of existing plant material is recommended by the city arborist. Trees designated by the city as "Landmark Trees" pursuant to Chapter 35 shall be preserved. Preservation of existing plant materials shall be accomplished in conformance with city standards.

k. Street trees. The required trees in the perimeter landscaped strip adjacent to a public street shall be placed in or adjacent to the public right-of-way when required by the planning commission in furtherance of a street tree plan. Trees placed in the public right-of-way shall become the responsibility of the city to maintain.

l. Off-street parking structures. Off-street parking structures shall conform to all applicable provisions of yard requirements, section 38-28.

~~Landscaping shall be provided and maintained in all yards. Suitable facades shall be provided as part of the structure. Landscaping requirements shall not apply to parking spaces within such structures. A wall at least three and one half (3 1/2) feet in height shall surround any parking which is on top of a structure, and suitable plantings shall be provided to buffer the view of such parking from nearby properties and rights of way.~~

~~m. a.~~ Accessory structures and equipment. Accessory structures may be provided for use of vehicle attendants or patrons. Such structures shall be subject to the same yard requirements as the parking or vehicle use areas to which they are accessory. Such structures shall be of permanent construction and designed to be compatible with other structures on the site. Entrance controls shall not be located so as to cause waiting vehicles to stand on a public street. Accessory equipment such as trash containers, air conditioning units and electrical transformers may be located within the required landscaped areas, provided they are appropriately screened.

~~n. Plan approval. Plans for landscaping shall be approved by the planning commission with the advice of the city arborist and the architectural advisory board, as part of the site plan process required by section 38-29. In that a certain amount of discretion is possible in providing the landscaping required by this subsection, applicants are required to consult with the city arborist in advance of plan preparation in order to determine what trees, shrub and other landscape materials have been found to work best in the city.~~

~~o. Landscaping adjustments after installation. In the event that the landscaping materials approved by the planning commission can not be installed due to unavailability, or if the installed varieties fail, substitute materials may be installed, provided such are approved by the city arborist, acting with the advice of the architectural advisory board.~~

~~p. b.~~ Lighting. All lighting equipment used in illumination of off-street parking and vehicle use areas shall conform to the appropriate provisions of the Outdoor Lighting Ordinance, Chapter 25 of the City Code, and shall be confined to the limits of the parking area unless otherwise permitted.

~~q. c.~~ Paving. All off-street parking and vehicle use areas provided in satisfaction of the requirements of this section shall be paved with materials that meet city specifications.

~~r. Exceptions. The planning commission may waive or modify the requirements of this subsection where adjacent properties are developed under a unified site plan or where the strict interpretation of these provisions would reduce the usable area of a site to a point that would preclude a reasonable use. In such instances, special landscaping and/or architectural techniques may be required in lieu of the requirements of this subsection. The commission may also attach conditions to any such waiver or modification to assure that the results of the waiver of modification shall be in accord with the purposes and intent of this subsection.~~